available.[67] Commenters disagree, however, on whether the Commission's proposed TCP methodology provides a reasonable basis for calculating settlement rate benchmarks in the absence of cost information.

52. U.S.-owned carriers generally support the TCP methodology as an interim solution to achieve settlement rates that more closely approximate costs than current settlement rates. They emphasize, however, that the TCP methodology would result in rates that are substantially above costs and that the Commission's ultimate goal should be to achieve settlement rates that are cost-based. For example, MCI states that it "firmly supports moving settlement rates toward their true cost" but the TCP approach "would be a reasonable compromise as an interim solution for the purpose of negotiating more reasonable settlement rates."[68] MCI contends that the advantage of the TCP methodology is that settlement rates based on TCPs would be nondiscriminatory because they would represent the same rates charged by foreign carriers to their domestic customers.[69] WorldCom similarly submits that while TSLRIC-based settlement rates are the ultimate goal, the TCP methodology "is an important step in the right direction toward cost-based rates."[70] WorldCom states that the TCP methodology provides a reasonable foundation for benchmarks because it is based on the best available information.[71] In addition, WorldCom notes that the TCPs are a "reasonable surrogate" for setting benchmarks because they are based on the actual rates in effect, as established by foreign carriers and reviewed by foreign regulators.[72] ESI, on the other hand,

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[67] *See e.g.*, United Kingdom Comments at 2 (noting "the difficulties the Commission has had in obtaining detailed cost data and interconnection prices for most of the routes examined"); NTIA Reply at 10 ("NTIA appreciates the difficulties the Commission catalogues in assessing the actual costs of terminating traffic").

[68] MCI Comments at 3.

[69] *Id.*

[70] WorldCom Comments at 7-8. *See also*, Sprint Comments at 3 (Commission proposal "would place some modest upper limits on the amount by which U.S. ratepayers must continue to subsidize the rest of the world").

[71] WorldCom Comments at 8; *see also* NTIA Reply at 11 ("applying foreign carrier tariffed prices as surrogates for the three network components cited in ITU Recommendation D.140 offers the best available approach to establishing new (if interim) benchmark rates").

[72] WorldCom Comments at 8; *see also* NTIA Reply at 11 (concurring with the Commission that a benefit of the TCPs is that they are based on the rates charged by foreign carriers to their domestic customers and that under the principle of nondiscrimination, U.S. carriers should not pay foreign carriers more than the foreign carrier's domestic customers are charged for the same service).

disagrees that we should set benchmarks based on the TCP methodology. It argues that we should adopt a benchmark ceiling "that is not significantly greater than nine cents."[73]

53. Several commenters concur with the Commission's conclusion that benchmarks based on TCPs will allow foreign carriers to recover costs in excess of their incremental costs of terminating international traffic. The Alexis de Tocqueville Institution asserts that the proposed TCPs "more than cover incremental cost plus a reasonable return."[74] AT&T agrees with the Commission's observation that the TCP for the domestic distribution component is substantially above cost because foreign carriers' tariff rates include retail expenses and overhead costs that are not incurred to provide international termination services, and contends that these same deficiencies apply to foreign carriers' tariffs for dedicated international private line service.[75] WorldCom states that if there is a fault of the proposed benchmarks based on TCPs it is that they "are set too high above true economic costs."[76]

54. Many foreign carriers and some governments oppose the Commission's proposal to use the TCP methodology to calculate settlement rate benchmarks, although they do not offer any specific suggestion for how to achieve cost-based settlement rates in the absence of data on carriers' costs. For example, KDD states that although it "fully supports establishing cost-oriented settlement rates and moving towards a new remunerative system," it opposes the FCC's benchmarking approach.[77] KDD contends "[o]nce the FCC determined that it lacked the data necessary to apply the TSLRIC methodology, its inquiry should have been at an end."[78] Telmex objects to the Commission's proposal to establish benchmarks, arguing that only carriers can determine a credible estimate of the costs they incur to engineer a route.[79]

55. Lattelekom objects to the Commission's goal of achieving cost-based settlement rates, arguing that the goal does not take into account the nature of different traffic minutes. Lattelekom argues that "[n]ot all minutes are the same" and accounting rate principles should

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[73] ESI Comments at 4.

[74] Alexis de Tocqueville Institution Reply at 5.

[75] AT&T Comments at n.29.

[76] WorldCom Comments at 8.

[77] KDD Comments at 12.

[78] *Id.* at 14.

[79] Telmex Comments, Statement of Indetec International ("Indetec Statement") at 8.

be different depending on the underlying nature of the product. In particular, it argues that settlement rates for "value added" services such as home country direct should not necessarily be cost-based.[80]

56. Some commenters object to the Commission's proposed use of the TCP methodology to establish settlement rate benchmarks on the ground that the TCPs do not accurately reflect carriers' costs. For example, GTE concludes that "the use of the TCP methodology is inherently flawed because it does not reflect actual cost."[81] Telmex asserts that "TCP data are simply not a good proxy for actual costs"[82] and the methodology generally "is invalid because it incorrectly assumes that there is a constant relationship between costs and rates across countries."[83]

57. To the extent specific concerns about the TCP methodology are raised in the record, they relate primarily to the Commission's claim that benchmarks based on the TCP methodology will fully compensate foreign carriers for the costs they incur in terminating international traffic.[84] Many commenters dispute this claim, arguing that the TCP methodology could result in an underrecovery of costs in some cases where the domestic tariffs that are used to calculate TCPs reflect cross-subsidies between services. These commenters contend that in cases where domestic tariffs reflect cross-subsidies, tariffs for local service may be below cost and the TCPs based on those tariffs will also be below cost.[85]

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[80] Lattelekom Comments at 2-4.

[81] GTE Reply at 27.

[82] Telmex Comments, Indetec Statement at 2-3; see also Singapore Tel Comments at 8 (The TCP approach "is not an accurate methodology for deriving cost-oriented settlement rates"); Telefónica de España Comments at 49 (proposed benchmarks "bear no relationship whatsoever to the real costs of providing international service").

[83] Telmex Comments, Indetec Statement at 7; *see also* ASETA Comments at 2 (approximations made by the Commission show the limitations of trying to determine other carriers' costs). Tricom states that "[t]he Commission's benchmark rate proceeding, which relies, in part upon average network cost data supplied to the Commission by AT&T, . . . fails to recognize significant differences in costs incurred by carriers in countries with developing telecommunications markets." Tricom Reply at 5. The TCP methodology, however, relies on foreign carriers' tariffed rates and ITU data to calculate settlement rate benchmarks, not AT&T average cost data.

[84] *See Notice* at ¶42.

[85] AHCIET Comments at 4-5; Cable and Wireless Comments, Attachment A at 4; CANTO Comments at 6; Chunghwa Telecom Comments at 2; France Telecom Comments at 10-11; GTE Comments at 23; RPOAs of Korea Comments at 3; Taiwan Comments at 2; TSTT Comments at 4; Telefónica del Perú Comments at 12; Telefónica de España Comments at 55; India Reply at 2; GT&T Reply at 6.

IDC, on the other hand, recognizes that the TCP methodology includes a profit component and overhead costs, but argues that additional overhead expenses should be included in the benchmark calculations to account for "the basic costs of doing business in each country."[86] IDC further argues that the TCP methodology fails to take into account the fact that the cost of doing business can vary widely from country to country. Thus, according to IDC, the TCP methodology could "handicap" high-cost countries such as Japan.[87] GT&T states that the Commission mistakenly "has focused solely upon the notional settlement rate," instead of the actual per-minute settlement costs of U.S. carriers as determined by net settlement payments.[88] Thus, according to GT&T, the settlement rate benchmarks could ensure that U.S. carriers pay per minute termination costs that are substantially lower than the benchmarks.

58. Some commenters raise concerns related to the currency conversions used by the Commission to calculate benchmarks using the TCP methodology. KDD notes that the TCP methodology ignores the extent to which some foreign currencies like the Japanese Yen are overvalued compared to the U.S. dollar and argues that this deficiency demonstrates the inherent difficulty of translating foreign costs into U.S. dollars on an accurate and consistent basis. According to KDD, this difficulty should preempt any effort to prescribe settlement rates through a TCP approach.[89] France Telecom notes that the TCP methodology does not take into account the effect of currency fluctuations because the TCP estimates are converted into U.S. dollar equivalents on a set date.[90] France Telecom urges the Commission to consider another relevant economic unit designed to neutralize the effects of currency

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Singapore Telecom claims that the Commission's proposed TCP for Singapore is "far beneath" the costs it incurs in connection with U.S.-billed international switched service, but provides no support for this claim. Singapore Telecom Comments at 9. Chunghwa Telecom states that the TCP methodology does not consider "network architecture and wireless telephone call charge," but does not elaborate on this point. Chunghwa Comments at 2.

[86] IDC Comments at 4-5.

[87] *Id.* at 5.

[88] Letter from Robert J. Aamoth, counsel for GT&T, to William Caton, Acting Secretary, June 18, 1997 (GT&T June 18 *Ex Parte*) at 7.

[89] KDD Comments at 16.

[90] France Telecom Comments at 12-13; *see also* GTE Reply at 27; GT&T Reply at 6 (GT&T's national extension rate has not changed since 1989, but in the past eight years, the exchange rate ratio between Guyana and U.S. dollars has changed from 10:1 to 142:1 due to the devaluation of the Guyana currency).

fluctuations.[91] Telmex states that the period for data analysis chosen by the Commission, the fourth quarter of 1995 through the middle of 1996, does not provide accurate data for Mexico because during that period Mexico faced rapid rates of inflation and a significant devaluation of the peso.[92]

59. Telefónica de España argues that the Commission's reliance on exchange rates to produce U.S. dollar equivalents overestimates the costs of carriers in high-cost developed countries and underestimates the costs of carriers in developing countries. Telefónica de España urges the Commission to adjust the TCPs for the national extension and international switching components by using the World Bank's Purchasing Power Parity ("PPP") conversion factors rather than exchange rates to convert foreign currencies into U.S. dollars.[93] KDD agrees with Telefónica de España that the Commission erroneously ignored PPP in calculating the benchmark settlement rates. However, KDD argues that Telefónica de España misapplied the PPP in urging the Commission to establish lower TCPs for Japan and other developed countries. To the contrary, KDD argues, Japan's TCP is too low because translating the costs it incurs in Japanese yen into U.S. dollars based solely upon the exchange rate would result in KDD receiving less than full compensation for its costs. KDD concludes that the solution is for the Commission to permit U.S. and foreign carriers to allocate exchange rate and PPP risks among themselves through bilateral negotiations.[94]

60. France Telecom, Telefónica de España, and GT&T question our methodology for calculating the international transmission component. France Telecom questions the Commission's use of a multiplication factor of four to convert foreign carriers' private line rates to a per minute charge, claiming that in its experience, the multiplication factor may be significantly lower.[95] Telefónica de España similarly argues that we cannot assume that a 4:1 multiplication factor is appropriate for all traffic.[96] Telefónica de España further argues that

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[91] France Telecom Comments at 13.

[92] Telmex Comments at 23.

[93] Telefónica de España Comments at 59-63. According to Telefónica de España, only the national extension and international switching components require a PPP adjustment because they are the two components which are not internationally-traded services. That is, those services are provided only in a terminating country -- they cannot be "sold" in another country. *Id.* at 61.

[94] KDD Reply at 13-14.

[95] France Telecom Comments at 10 (France Telecom states that a multiplication factor of four is not common for a major international operator that has a physically diverse network that has been developed over a period of years).

[96] Telefónica de España Comments at 58.

the Commission's assumption of 8,000 minutes per circuit per month for purposes of converting private line rates to a per minute charge inaccurately reflects usage on developing country routes.[97] AT&T disagrees with these comments. It states that many smaller carriers use multiplication factors of six and seven.[98] AT&T further states that its experiences show that the assumption of 8,000 minutes "is in fact very conservative."[99] Sprint similarly states that the assumption of 8,000 minutes per month is "reasonable and even conservative."[100] It also states that the Commission's assumption of 4:1 multiplexing is reasonable and consistent with its own experience.[101]

61. GT&T claims that our methodology for calculating TCPs for the international transmission component ignores the fact that carriers use Ramsey pricing to establish rates for dedicated international traffic routing. Thus, according to GT&T, a carrier's retail international private line rate may be less on a per-minute basis than its wholesale costs of terminating international switched traffic. GT&T further argues that the Commission erroneously assumes international private line rates are a meaningful estimate of a carrier's transmission costs. According to GT&T, in developing countries, international private line service may be directed at only a few strategic customers. This is the case in Guyana, where service is directed at two customers.[102] GT&T also objects to the Commission's calculation of Guyana's international transmission TCP, arguing that because Guyana does not have a tariffed rate for international private line service, the Commission has no basis for calculating a TCP for Guyana.[103] GT&T further states that because it exchanges traffic with the United States exclusively via international satellite facilities, the Commission cannot calculate a TCP

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97 Telefónica de España Comments at 59. According to Telefónica de España, the amount of voice traffic between the United States and the Telefónica Group countries, on average, is approximately 7,000 minutes per circuit. *Id.*

98 AT&T Reply at 32.

99 *Id.*

100 Sprint Comments at 11.

101 *Id.*

102 GT&T Reply at 7-8; *see also* Telmex Comments at 23 (reliance on Telmex's private line rates for 1.544 Mbps dedicated circuits to calculate Mexico's TCP for the international transmission component is misplaced because during the period under review, Telmex had few such circuits, used older technology, and offered the lines at very low prices to few customers); C&W Comments, Attachment A at 4 (prices of international private leased circuits are the outcome of commercial decisions by carriers and therefore are not sound basis for establishing benchmarks).

103 GT&T Reply at 4-5.

for Guyana without providing evidence that the costs of such facilities are the same as fiber optic submarine cables.[104]

62. Telefónica de España also claims that private line rates should not be used to calculate the international facility component. It asserts that the costs of leasing private lines are lower than the costs of operating public lines because switched traffic is more variable than private line traffic and therefore subject to greater risk.[105] AT&T disagrees with this claim. It contends that switched traffic does not carry noticeably greater risks than the leasing of private lines. AT&T further contends that Telefónica de España fails to consider the profits and retail expenses included in private line tariffs.[106]

63. ABS-CBN states that the TCP for the national extension component in the Philippines understates the costs of termination in that country because it is based upon data which reflect the heavily urban distribution of the Philippine Long Distance Telephone Company's ("PLDT") historic base of access lines. ABS-CBN states that this data does not accurately reflect the costs of new carriers which have an obligation to serve outlying areas which are more expensive to serve.[107] It further argues that the TCP methodology is defective because it relies upon data concerning the geographic distribution of U.S.-originated calls that is not in the record.[108] It contends that reliance on such data would be contrary to what it states is the precedent established by the Commission in the Universal Service Reform Order[109] that the Commission cannot rely on a model that contains confidential data.[110] AT&T disagrees that the Commission's reliance on traffic data not in the record undermines the benchmark settlement rates. It states that every U.S. carrier has full details of the in-country distribution of its U.S.-originated traffic and every foreign carrier receiving settlement payments has that information for the U.S.-originated traffic that it terminates.[111]

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[104] *Id.* at 2-4.

[105] Telefónica de España Comments at 57-58.

[106] AT&T Reply at n. 63.

[107] ABS-CBN Reply at 7.

[108] ABS-CBN Comments at 5-6.

[109] *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, *Report and Order* (rel. May 8, 1997) ("*Universal Service Reform Order*").

[110] ABS-CBN Supplemental Comments at 2-5.

[111] AT&T Reply at 34, n.68; AT&T Supplemental Reply at 3-4.

64. GT&T objects to the Commission's proposed use of ITU-T Recommendation D.300 R to calculate TCPs for the international switching component. GT&T argues that the Commission's assumption that a country's level of digitalization corresponds to its level of economic development is not supported in the record and the Commission has not shown that the results of the TEUREM study in Recommendation D.300 R adequately reflect the higher costs of developing countries.[112] GT&T further states that the proposed use of a single usage-based amount to estimate switching costs is inconsistent with the Commission's assertion in the access charge reform proceeding that a significant portion of local switching costs likely do not vary with usage.[113] It also states that the TEUREM study cannot be used to calculate a TCP for the international switching component because the underlying data and assumption used to calculate its results have not been made publicly available.[114]

65. Some carriers raise concerns that the TCP methodology ignores certain costs incurred by carriers. ABS-CBN states that the TCP methodology is flawed because it does not take into account the local interconnection costs paid to incumbent local carriers by competing international carriers. As an example, ABS-CBN cites the Philippine market where international carriers had contracts in 1996 with the dominant Philippine carrier which required a $.35 per minute payment for international calls terminating in metro-Manila, plus up to $.15 per minute more for calls terminating elsewhere. ABS-CBN concludes that the Commission's proposed benchmark of $.19 for the Philippines would drive out competing international carriers that must pay domestic interconnection charges that exceed the benchmark level.[115] Similarly, Tricom states that it must pay CODETEL access charges which are nearly three times higher than the Commission's proposed TCP for the national extension component in the Dominican Republic, are higher than the Dominican Republic's overall TCP, and nearly equal to the proposed benchmark for the Dominican Republic.[116] HKTI states that the delivery fee from international calls required by the Hong Kong regulator

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[112] *Id.* at 8. *See also* AHCIET Comments at 4-5 (it is not valid to generalize the results of Recommendation D.300, which correspond to a particular geographic and political region; GNP per capita should be the sole basis for estimating switching costs). Chunghwa Telecom also questions the Commission's TCPs for the international switching component, asserting that the TCP for this component "is lower than the actual cost." However, it provides no basis for this assertion. Chunghwa Telecom Comments at 2.

[113] *Id.* at 8-9 (citing *Access Charge Reform Order* at ¶ 72).

[114] *Id.* at 8.

[115] ABS-CBN Comments at 4-5. ABS-CBN notes that the dominant Philippine carrier has proposed reducing the metro-Manila call termination charge to $.28 per minute.

[116] Tricom Comments at 4.

serves as a floor below which HKTI cannot fall without incurring an actual loss on international calls.[117] Telmex notes that the TCP methodology does not take into account additional costs carriers may incur to satisfy government-mandated service objectives like universal service and infrastructure development.[118] Telefónica de España also states that the TCP methodology does not include the costs of providing universal service and urges the Commission, at a minimum, to adjust the methodology to include a universal service component.[119]

c. Discussion

66. We continue to believe after reviewing the record that the TCP methodology provides a reasonable basis for establishing settlement rate benchmarks in the absence of carrier-specific cost data. Relying on publicly available tariff data and information published by the ITU enables the Commission to make some progress in achieving the goal of cost-oriented settlement rates promised in ITU Recommendation D.140. At the same time, the TCP methodology treats foreign carriers fairly. We do not believe, as some commenters argue, that we should delay taking action to reduce settlement rates until carrier-specific cost data is available. Nor do we believe, as some commenters contend, that we should reject the TCP methodology because it is not a pure cost-based methodology.[120] Rather, where we have data that enables us to bring rates closer to costs and to treat foreign carriers equitably, we believe we have a reasonable basis upon which to establish benchmarks.[121]

67. A primary benefit of the TCP methodology is that it relies on data that is publicly available: carriers' tariffed rates and information published by the ITU.[122] Moreover,

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[117] HKTI Comments at 19; *see also* CAT Comments at 2 (TCP methodology does not take into account "local call charge, network investment charges, as well as other concerned charges").

[118] Telmex Comments, Indetec Statement at 8.

[119] Telefónica de España Comments at 50-54. Telefónica de España suggests that the Commission consider a system of asymmetrical payments which reflects differences in universal service costs. Under such a system, developed countries would be required to pay a higher rate to terminate traffic in a less developed country. *Id.* at 54. *See also* Brazil Reply at ¶ 8 (a fourth cost component for establishing settlement rates should be universal service subsidies).

[120] *See, e.g.*, Cable and Wireless Reply at 27; Telmex Comments, Indetec Statement at 2-3.

[121] *See* discussion in Section II.E.1. of this *Order* concerning the Commission's authority under the Communications Act to establish benchmarks based on the TCP methodology.

[122] By contrast, we have no basis upon which to adopt ESI's recommendation that we adopt benchmarks that are no more than $0.09. There is no record evidence to support ESI's estimate of average cost.

it is based on a framework that received consensus approval from the members of the ITU.[123] Importantly, the TCP methodology is equitable because it relies primarily on the tariffed prices carriers charge to their own domestic customers. As Frontier notes, the data on which the TCP methodology is based "represents rates at which the individual component elements would be available if they are offered on an unbundled basis."[124] Reliance on tariffed prices also means that U.S. carriers are treated fairly. As we stated in the *Notice*, nondiscriminatory treatment of U.S. carriers would require that foreign carriers assess U.S. carriers a comparable charge for the network elements necessary for international termination services as they charge their own domestic customers.

68. We disagree with Lattelekom that settlement rates should vary with the nature of the traffic. The underlying service provided by the foreign correspondent, international termination, is the same regardless of the nature of the traffic. The network components used and the costs of those components do not vary. Because the underlying service and its costs are the same, we see no reason why the settlement rate should be different based on the nature of the end user service provided.

69. It is true, as some commenters note, that the TCP methodology results in benchmark rates that are still above-cost. Nonetheless, the benchmarks we adopt here will achieve significant reductions in settlement rates, bringing them closer to cost, and place some discipline on a system of inflated settlement rates. We therefore adopt the TCP methodology as the basis for calculating settlement rate benchmarks.[125] The TCP methodology study procedure, data collection, and estimation methods are described in further detail in Appendix E to this *Order*.

70. We disagree with commenters' arguments that benchmarks based on TCPs will not allow foreign carriers to recover their costs of providing international termination services. The fact that foreign carriers' tariff rates for domestic local service in many cases contain cross-subsidies does not mean that reliance on those tariff rates to calculate benchmarks results in an underrecovery of costs. The TCP methodology relies on tariff rates for both domestic local and long distance service to calculate a price for the national extension element. As described in Appendix E, the national extension element is calculated by

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[123] *See* NTIA Reply at 10-11 ("NTIA commends the Commission for relying on the cost guidelines contained in ITU Recommendation D.140, as those guidelines represent consensus at the multilateral level").

[124] Frontier Comments at 2.

[125] The benchmark rates we adopt using the TCP methodology are set forth in the next section. See Section II.A.2., *infra*.

distributing international calls from the United States among service classifications, time periods, and the destination of the calls. The appropriate tariff rate is then applied to the minutes in each distribution category. Thus, to the extent domestic local tariff rates are priced below cost, any underrecovery of costs should be offset by traffic that is distributed to service classifications such as long distance or international whose tariff rates are above-cost. Moreover, most international traffic is terminated in major metropolitan areas where network costs are generally lower due to the economies of scope and scale that exist where traffic is concentrated in one geographic area. In many cases, more than 70 percent of calls from the United States terminate in major metropolitan areas.[126] Moreover, as we stated in the *Notice*, the tariff rates used to calculate TCPs include costs associated with providing retail communications service to consumers which would not be included in cost-based settlement rates. For example, tariff rates include an allowance for uncollectible billings, general overhead expenses associated with retail service, and marketing and commercial expenses that would not be included in the cost of providing international termination services.

71. We also note that our estimation procedures generally are conservative, erring on the side of allowing a higher price in many instances. For example, our categorization of countries by three levels of digitalization for purposes of calculating the TCP for the international gateway component produces a conservative estimate of switching costs. We assigned lower levels of digitalization to developing countries based on the assumption that, generally, those countries' networks are less technologically advanced. In fact, however, some developing countries with recent significant infrastructure development could have more technologically advanced telecommunications equipment. Moreover, evidence in the marketplace suggests that the ITU data used to calculate the TCP for the international gateway switching component is substantially above cost.[127] For example, Telia, the domestic carrier in Sweden, has an interconnect tariff which allows competing international carriers to interconnect with its domestic network. The tariff has two components: a monthly connection point charge of approximately $6,000 and fixed monthly charge of approximately $73.00 per facility, *e.g.*, 2.048 Mbps circuit. These fixed charges are equivalent to a monthly rate of $0.003 per minute for usage of 8,000 minutes per circuit. In addition, in our *Interconnection Order* we concluded that a range between $0.002 per minute of use to $0.004 per minute of use for unbundled local switching is a reasonable proxy for domestic switching service.

72. We find GT&T's argument that our focus on the notional settlement rate instead of the actual per-minute settlement costs of U.S. carriers means that U.S. carriers could pay per minute termination costs that are substantially lower than the benchmarks to be

[126] *See Notice*, Bureau Report at 13. *See also* WorldCom Comments at 9, n.25.

[127] *Interconnection Order* at ¶ 811.

without merit.[128] GT&T's argument fails to take into account the fact that there are two sides to the netting process for calculating settlement payments. It is true that at settlement U.S. carriers pay less than the notional settlement rate times the total amount of traffic they originate. But that is because the minutes they originate are netted against minutes they terminate for the foreign correspondent. Thus, the net payment from the U.S. carrier to the foreign carrier represents payments the foreign carrier owes to the U.S. carrier for terminating foreign-originated calls. The per minute termination cost paid by U.S. carriers is the same; it is just offset by the per minute termination cost paid by foreign carriers.

73. Some commenters raise concerns about the use of exchange rates to calculate the settlement rate benchmarks. Three concerns are raised: (1) that a country's currency may have been devalued vis-á-vis the dollar at the time the benchmarks were calculated; (2) currency fluctuations in the future may affect the level of compensation a country receives; and (3) using exchange rates to convert foreign currencies into U.S. dollars overestimates the costs of carriers in high-cost countries and underestimates the costs of carriers in low-cost countries. While currency fluctuations do affect the level of compensation a country receives, this concern is common to all goods and services traded internationally and exists for parties negotiating accounting rate agreements regardless of whether we set benchmark settlement rates. When parties to an agreement set a price for an internationally traded good or service, the value of the compensation the parties receive will vary depending on the exchange rate between the relevant currencies. The parties to an accounting rate agreement have no control over the value of other countries' currencies. Nor do we. Some commenters suggest that we denominate our benchmarks in a neutral currency such as SDRs to reduce the impact of currency fluctuations vis-á-vis the dollar. We agree that if parties would prefer to allocate the risk of currency fluctuations by calculating their accounting rate in SDRs rather than in U.S. dollars, they should be free to do so. We believe it is appropriate, however, to leave it up to the parties to an agreement whether to calculate the accounting rate in SDRs or U.S. dollars.

74. We emphasize that any carrier may ask us to reconsider, in a specific case, the benchmarks on the grounds that they do not permit the carrier to recover the incremental costs of providing international termination service.[129] Thus, if the exchange rate used to calculate the benchmarks does not permit a carrier to recover its costs, either because a country's currency may have been significantly devalued vis-á-vis the U.S. dollar at the time the

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[128] We generally refer to the "notional settlement rate" as the "net settlement rate." In order to calculate the net settlement rate for any particular U.S. carrier, one must subtract the product of the carrier's inbound minutes and the carrier's settlement rate for a particular country from the product of the carrier's outbound minutes to a country and the settlement rate with its foreign correspondent(s) in that country. One must then divide the total by the carrier's total outbound minutes to the country.

[129] *See supra*, Section II.A.2.

benchmarks were calculated or because a carrier is located in a "low cost" country, the benchmark for that carrier can be adjusted. We also note that the effect of any one country's currency valuation on the benchmark calculations is mitigated by the fact that we use an averaging approach, as described in the next section of this *Order*, to calculate benchmark settlement rates.

75. France Telecom and Telefónica de España raise concerns about the calculation of the international transmission component. Both state that it may not be appropriate for the Commission to use a 4:1 multiplication factor to convert foreign carriers' private lines to a per minute charge, and Telefónica de España states that the Commission's assumption of 8,000 minutes per circuit per month for purposes of converting private line rates to a per minute charge inaccurately reflects usage on developing country routes. Both the 4:1 multiplication factor and the 8,000 minutes per month estimate are based on actual operating results experienced by U.S. facilities-based carriers that provide IMTS. The figures are based on the operations of AT&T, MCI, Sprint, and WorldCom, and thus reflect the experiences of different sized carriers. In addition, the figures reflect service provided over a range of traffic routes to countries with varying levels of economic development. Thus, while the multiplication factor for some routes may be lower, as France Telecom notes, it may be higher on others reflected in the estimate. The same is true of the estimate of 8,000 minutes per circuit. Moreover, contrary to Telefónica de España's claim, the average minutes per circuit in some developing countries may exceed 8,000 minutes because the international transmission circuits are sometimes used to terminate domestic calls where there are inadequate domestic facilities.

76. We find no evidence to support GT&T's claim that carriers use Ramsey pricing to establish rates for dedicated international traffic routing. Ramsey pricing requires precise information about the incremental costs of supplying circuits for private line services and detailed information about the demand elasticities among different classes of international communications users.[130] There is nothing in the record to suggest that this information is available to carriers. In fact, carriers, including GT&T, have vociferously argued that cost information is not available.[131] We also note that there is no evidence in the record that, even

[130] The theory behind Ramsey pricing is that prices to different customer groups are set at varying levels above incremental costs depending upon the demand elasticities of the group. Those customer groups with an inelastic demand are charged higher prices and those with an elastic demand are charged lower prices. Thus, to establish rates based on Ramsey pricing principles, a carrier would need to know the incremental cost of supplying a service, and the demand elasticities of various customer groups. *See* Ramsey, F., "A Contribution to the Theory of Taxation," Economic Journal, Vol. 37, No. 1, pp. 47-61, 1927; *see also*, William Baumol, Economic Theory and Operations Analysis, pp. 513-16, and Kenneth Train, Optimal Regulation, Chapter 4.

[131] *See, e.g.*, GT&T Reply at 4-5.

if carriers did use Ramsey pricing to establish rates for dedicated international traffic routing, such a pricing strategy would result in below-cost international private line tariffs. We find it highly unlikely that a monopoly carrier would price any service below the level of costs incurred to provide that service.

77. We disagree with commenters that argue international private line rates do not provide a reasonable basis for calculating the TCP for the international transmission component. GT&T argues that international private line rates are not a meaningful estimate of a carrier's transmission costs because, in developing countries, international private line service may be directed at only a few strategic customers.[132] Similarly, Telmex asserts that during the period under review, Telmex had few international private line circuits, used older technology, and offered the lines at very low prices to few customers.[133] AHCIET states that it is not valid to use the tariffs of one service, international private lines, to estimate the cost of another service, international termination.[134] We use carriers' international private line rates to calculate the TCP for the international transmission component because the circuits used for private line service are functionally the same as those used to provide IMTS. Thus, the cost for the underlying facility for both services, the circuits, should be the same. Unless GT&T and Telmex are offering international private line service at below cost rates, their international private line rates would thus recover, at a minimum, their costs of providing the international transmission component of international termination service.

78. We also disagree with GT&T's claim that the Commission has no basis for calculating a TCP for Guyana because Guyana does not have a tariffed rate for international private line service and because Guyana exchanges traffic with the United States exclusively via international satellite facilities. We believe it is reasonable to use the highest available tariff for international private line service in the region, Brazil's rate of $0.066, to calculate Guyana's international transmission TCP. The international private line rates are not used as a precise estimate of individual country's costs to provide the international transmission component of international termination services. Rather, they are used as the next best source of data to calculate benchmarks. As discussed above, reliance on retail tariff rates produces benchmark settlement rates that are in excess of the costs of providing international termination service. Moreover, as described in the next section of this *Order*, the individual country TCPs are averaged to calculate one benchmark rate for categories of countries. With respect to GT&T's claim that we cannot calculate a TCP for Guyana without providing evidence that the costs of international satellite facilities are the same as fiber optic submarine

[132] GT&T Reply at 7-8.

[133] Telmex Comments at 23.

[134] AHCIET Comments at 5.

cables, we note that there is substantial evidence that the cost of international satellite facilities are extremely low. Based on its assumptions about bandwidth, traffic fill factors and financial carrying costs, the ITU cited in its 1996 *Direction of Traffic* estimates that the per minute cost, including operating expenses, on international cable and satellite systems is less than $0.01.[135] This cost estimate is less than one sixth the rate of $0.066 we use for Guyana's international transmission TCP.

79. Telefónica de España objects on different grounds to the use of international private line rates to calculate the TCP for the international transmission component. It asserts that the costs of leasing private lines are lower than the costs of operating public lines because switched traffic is more variable than private line traffic and therefore subject to greater risk. We disagree with this argument. Even if switched traffic is subject to greater risk, as Telefónica de España asserts, that greater risk would be more than offset by the margins in international private line tariffs. The tariffed component prices for the international transmission component ranged from $0.03 to $0.25, with most in the range of $0.05 to $0.07. However, the ITU estimates that the cost of the undersea cable, including operating expenses, used to provide the international transmission component of termination services is less than $0.01 per minute.[136]

80. We also disagree with GT&T's objections to our use of ITU Recommendation D.300 R to calculate the TCP for the international switching component. GT&T argues that the Commission's assumption that a country's level of digitalization corresponds to its level of economic development is not supported in the record and the Commission has not shown that the results of the TEUREM study in Recommendation D.300 R adequately reflect the higher costs of developing countries. As an initial matter, GT&T provides no support for its statement that international switching costs are higher in developing countries. In addition, our assumptions in calculating the TCP for the international gateway switching component are favorable to developing countries. We assumed that developing countries' networks generally are less technologically advanced. We therefore assigned lower levels of digitalization, and as a result, higher prices for the switching component, to developing countries. In fact, however, as noted above, some developing countries with recent significant infrastructure development may have more technologically advanced telecommunications equipment. Moreover, as discussed above, there is evidence in the marketplace that the estimates in the TEUREM study substantially overestimate international gateway switching costs.

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[135] *Direction of Traffic, Trends in International Telephone Tariffs*, ITU and Telegeography, Inc. (1996) at 4-5 (citing *Satellite Communications: Structural Change and Competition*, OECD, Paris (1995)).

[136] *Id.*

81. GT&T also argues that we cannot rely on the TEUREM study to calculate the TCP for the international switching component because the underlying data and assumptions of that study are not publicly available. However, we do not rely on the underlying data and assumptions of the study to calculate the TCP for the international switching component. Instead, we take the results of that study, the accounting rate shares assigned to the international switching component, and assign them to countries based on their level of economic development. Thus, there is no information or data that we relied upon to make our calculations that is not publicly available.

82. GT&T further states that our proposed use of a single usage-based amount to estimate switching costs is inconsistent with the Commission's assertion in the access charge reform proceeding that a significant portion of local switching costs likely do not vary with usage.[137] There is, however, no inconsistency between our calculation of a per minute price for the international gateway switching component in this *Order* and our statement in the access charge reform proceeding referenced by GT&T. By calculating a per minute price here, we are not saying that switching costs vary with usage. Rather, we are simply taking the total price we estimate and dividing it by minutes to calculate a per minute price. The per minute price we calculate does not vary with usage.

83. ABS-CBN objected in its comments to the fact that data concerning the geographic distribution of U.S.-originated calls used to calculate the national extension component TCP was not in the record. The national extension TCP is calculated by determining the distribution of international calls from the United States within each country and applying the appropriate tariff to the minutes in each distribution category. The distribution of minutes for each country was determined from information collected on AT&T's customers' calls during a three month period that began on January 6, 1996. AT&T filed the data under seal in this proceeding with an accompanying Motion for Confidential Treatment.[138] Although we believed that foreign carriers would likely have call distribution data on the U.S.-originated traffic that they terminate, we welcomed AT&T's filing of the call distribution data to supplement the record in this proceeding. Recognizing that "AT&T's call distribution data could provide competitors with competitively-sensitive market and cost structure information about AT&T's operations," the International Bureau issued an order on July 23, 1997, granting AT&T's request for confidential treatment.[139] The Bureau permitted

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[137] GT&T Reply at 8-9 (citing *Access Charge Reform Order* at ¶ 72).

[138] International Settlement Rates, *Motion for Confidential Treatment*, IB Docket No. 96-261 (filed by AT&T on July 22, 1997).

[139] International Settlement Rates, *Order Granting Motion for Confidential Treatment*, IB Docket No. 96-261, DA 97-1563 (rel. July 23, 1997).

AT&T to make the information available to all parties of record pursuant to a Confidentiality Agreement that AT&T had attached to its motion. ABS-CBN subsequently filed a motion to establish a comment schedule for the AT&T data.[140] The International Bureau denied ABS-CBN's motion, finding that ABS-CBN had not shown good cause for establishing a comment schedule.[141] The Bureau concluded that, contrary to ABS-CBN's representation, the AT&T data is not complex and is presented by AT&T in a concise, easy-to-understand manner.[142]

84. After reviewing the data, ABS-CBN complained that it could not verify the national extension TCP calculations.[143] ABS-CBN complained in particular that it did not understand how time-of-day weighted prices could have been calculated based on the data provided by AT&T. It concluded that there must be a gap in the data and that the Bureau's asserted reliance on the call distribution data "is suspect."[144] We believe that the data placed on the record by AT&T is sufficient to allow parties to verify the national extension TCP calculations. Moreover, contrary to ABS-CBN's claim, the data is complete. There is no further data that the Bureau relied upon to calculate the national extension TCPs that is not in the record. Because of the confidential treatment granted AT&T's call distribution data, we cannot discuss in this *Order* details of the data. However, we can describe the data generally. The data is provided in table format, with tariff category in one column and the percentage of calls distributed to each category in another column. For countries that also have time-of-day or peak/off-peak tariffs, percentage of calls distributed in each of the relevant timeframes is included in a separate table. The traffic data that is aggregated in table format was collected during a three month period. In the Bureau Report attached to the *Notice*, the International Bureau incorrectly stated that the data was collected for the same one hour period during the three months, when in fact, the data was collected throughout the day for three months. For

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[140] International Settlement Rates, *Motion to Establish Comment Schedule*, IB Docket No. 96-261 (filed by ABS-CBN Telecom on July 28, 1997 ("*ABS-CBN Telecom's Motion*").

[141] International Settlement Rates, *Order Denying Motion to Establish Comment Schedule*, IB Docket No. 96-261, DA 97-1613 (rel. July 29, 1997).

[142] ABS-CBN requested a further comment schedule in part because of "the expected scope of the new AT&T data, which . . . cover up to ninety days of telephone call volumes, segmented by calling hour for at least fifty-six countries." *ABS-CBN Telecom's Motion* at 2. ABS-CBN Telecom expressed this concern in its motion without taking the opportunity to review first the information that AT&T had made available.

[143] Letter from Gregory C. Staple, Counsel to ABS-CBN, to Peter Cowhey, Chief, International Bureau, July 30, 1997 (*ABS-CBN July 30 Ex Parte*); *see also Telefónica de España and Telefónica Larga Distancia de Puerto Rico July 30 Ex Parte* (arguing that "it is not readily apparent . . . how the Commission used this data to calculate the national extension component of the TCP").

[144] *ABS-CBN July 30 Ex Parte* at 3.

purposes of calculating the national extension TCP, the International Bureau assumed that the percentage of overall traffic to a country distributed among time-of-day or peak/off-peak tariffs was distributed in the same percentage across tariff categories. Thus, for example, if 40% of the traffic was delivered during the off-peak period, it was assumed that 40% of the traffic in each tariff category was delivered during the off-peak period.

85. ABS-CBN further argues, in its comments and its subsequent July 30 *Ex Parte*, that because the traffic distribution data for the Philippines was collected in 1996, it only covers traffic terminated by PLDT. According to ABS-CBN, the data does not accurately reflect the costs of new carriers which have an obligation to serve outlying areas which are more expensive to serve.[145] As we stated in the *Notice*, any interested party may ask us to reconsider, in a specific case, the benchmarks on the grounds that they do not permit recovery of its incremental costs of providing international termination service.[146] Thus, if ABS-CBN believes that the benchmark of $0.19 for the Philippines does not permit it to recover its costs, it may submit to us the basis for its cost calculations and we will reconsider that benchmark.

86. Some commenters raise concerns that the TCP methodology ignores certain costs incurred by carriers such as local interconnection costs paid to incumbent local carriers by competing international carriers[147] and additional costs carriers may incur to satisfy government-mandated service objectives like universal service and infrastructure development.[148] As discussed in Section II.B.1, most countries, including the United States, have established a subsidy system in which the cost of the domestic network is not borne wholly by the domestic subscribers in all cases. We recognize, as many commenters point out, that such universal service subsidies are legitimate telecommunications policies. However, we disagree that foreign termination services from certain countries should be required to finance a disproportionate share of network costs, or that foreign carriers should have the ability to impose hidden, discriminatory universal service obligations on termination services for foreign-originated calls.

87. The issue of interconnection rates and universal service obligations is specifically addressed in the Reference Paper on Procompetitive Regulatory Principles negotiated as part of the WTO Basic Telecom Agreement. The Reference Paper obligates the

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[145] ABS-CBN Reply at 7; *ABS-CBN July 30 Ex Parte* at 3.

[146] Notice at ¶ 57. *See infra*, Section II.A.2.

[147] ABS-CBN Comments at 4-5; Tricom Comments at 4.

[148] *See, e.g.*, Telmex Comments, Indetec Statement at 8; Telefónica de España Comments at 50-54.

governments that have adopted it as part of their schedules of commitments to ensure the availability of interconnection to major suppliers[149] "under non-discriminatory terms, conditions . . . and rates." It further provides that universal service obligations will not be regarded as anticompetitive, "provided they are administered in a transparent, nondiscriminatory and competitively neutral manner." These principles, as well as the others contained in the Reference Paper, are essential to the implementation of full and fair competition. Discriminatory local interconnection charges and universal service obligations that are levied disproportionately on foreign-originated calls clearly violate these principles. Thus, to the extent that commenters argue our TCP methodology should be revised to take into account discriminatory local access charges or universal service subsidies aimed solely or disproportionately at international termination services, we disagree. We note, however, that as a practical matter, the TCP methodology we adopt here results in settlement rate benchmarks that are still above the cost of providing international termination service. As a result, the benchmarks include a generous contribution that could be applied to fund universal service and other social goals.

88. We emphasize, as stated in the *Notice*, that any interested party may ask us to reconsider, in a specific case, the benchmarks we adopt in this *Order* on the grounds that they do not permit the recovery of the incremental costs incurred to receive, transmit, and terminate international service. TSTT requests more detail "regarding the nature of the forum" for such challenges than was provided in the *Notice*.[150] WorldCom states that the Commission should establish a clear-cut procedure to govern challenges and that the burden should be placed on the foreign carrier to demonstrate that it has higher costs.[151] We will permit those asking for reconsideration in a specific case to file a written request seeking a determination that the relevant settlement rate benchmark does not permit recovery of incremental costs. In its request, the petitioner must demonstrate that the relevant incremental costs are higher than the established benchmark.

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[149] A major supplier is defined in the Reference Paper as "a supplier which has the ability to materially affect the terms of participation (having regard to price and supply) in the relevant market for basic telecommunications services as a result of: (a) control over essential facilities; or (b) use of its position in the market."

[150] TSTT Comments at 3.

[151] WorldCom Comments at 9.

89. KDD objects to this process, arguing that foreign carriers should not be required to provide cost data to the Commission to justify a different benchmark.[152] At the same time, KDD questions the accuracy of the Commission's benchmarks. It is not our purpose to set foreign carrier rates, but rather to ensure that U.S. carriers' rates are just, reasonable and nondiscriminatory. However, if the Commission is to ensure equitable treatment under its benchmarks policy, it must provide an opportunity for justification of a different benchmark level if it is believed that the established benchmarks do not permit recovery of relevant costs. We do not here compel any foreign carrier to provide cost data. Rather, we provide an opportunity to seek revision of a settlement rate benchmark with which U.S. carriers are to adhere by providing cost data. Moreover, we note that under the Commission's rules, a party may request confidential treatment of any cost data it submits to justify a different settlement rate benchmark for a U.S. carrier.[153]

2. Benchmarks Based on Tariffed Components Prices

a. The Notice

90. We proposed in the *Notice* to categorize countries by level of economic development and to establish a separate benchmark for each category. We proposed to use the World Bank and ITU's classification of countries based on level of gross national product (GNP) per capita. The four levels of economic development under this classification scheme are: (1) low income, GNP per capita of less than $726; (2) lower-middle income, $726-$2,895 per capita; (3) upper-middle income, $2,896-$8,955 per capita; and (4) high income, $8,956 or more.[154] We proposed to use the simple average of the tariffed components prices for all countries in each economic development category as the upper end of benchmark ranges.[155]

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[152] KDD Comments at 18. Deutsche Telecom does not object to the challenge process, but argues that any cost information supplied by carriers must be accorded confidential treatment. Deutsche Telekom Comments at 11.

[153] *See* 47 C.F.R. § 0.459.

[154] *Social Indicators of Development,* World Bank, Washington, D.C. (1996). Because our proposed methodology for calculating the benchmarks resulted in benchmarks that are almost identical for lower-middle income and upper-middle income countries, we proposed to merge the two middle income countries into one "middle income" group for purposes of calculating and implementing the benchmark settlement rates.

[155] In addition to our proposal to establish benchmarks based on level of economic development, we asked for comment on other options for calculating benchmarks, either using the TCP methodology or some other approach.

91. We proposed to base our benchmarks on TCP averages instead of relying on individual country TCPs because an averaging approach mitigates the effect of carriers' inefficient pricing structures on our benchmark calculations.[156] Because the TCPs rely on foreign carriers' widely divergent tariffs to set prices for two of the three network elements, any inefficiencies in a foreign carrier's tariffs are captured in its tariffed components price. For example, telephone service in many countries is provided by monopoly carriers whose tariff rates may reflect protected market positions and an ability to charge prices not related to underlying costs. Moreover, many countries have rate structures that use high international or domestic long distance charges to offset below-cost local service fees. Averaging the TCPs mitigates the effect of these inefficiencies by averaging the most inefficient rates with those that are less inefficient.

92. We noted, however, that averaging all countries together would result in a benchmark that was substantially below current settlement rates with lower income countries and in many cases, above or equal to current settlement rates with upper income countries. We therefore proposed to categorize countries by level of economic development for purposes of calculating averages rather than calculate one average for all countries to create a less severe differential between current settlement rates and the benchmarks for lower income countries. We noted that establishing separate benchmarks based on level of economic development would mitigate the impact on developing countries of averaging the TCPs while still capturing some of the benefits of using an average. We also noted that economic development level is a logical way to cluster the tariffed components prices for purposes of averaging because there generally is an inverse correlation between the level of tariffed components prices and a country's level of economic development.

b. Positions of the Parties

93. Many commenters that address the Commission's proposal to calculate three benchmarks based on level of economic development express concern about the use of GNP per capita to classify countries. Many of these comments, however, reflect a fundamental misunderstanding about the rationale for the Commission's proposed TCP methodology. They assume that the Commission believes there is a correlation between income level and telecommunications network costs. Based on this misunderstanding, many commenters argue that grouping countries by income level does not capture certain alleged cost differences among countries.

94. For example, Singapore Telecom states that it "objects to the FCC's proposal to use the World Bank classifications as a basis for calibrating the comparative cost levels of

[156] We also asked for comment on whether we should adopt country-specific benchmarks where each country's benchmark would be equal to its TCP.

individual countries."[157] Singapore Telecom further states that there is not a clear correlation between economic development and telecommunications costs.[158] KDD also erroneously assumes the Commission proposed to establish benchmarks based upon income levels because there is a correlation between income level and telecommunications costs. Accordingly, KDD states that it opposes the Commission's proposal because "whatever relationship may exist between the World Bank classifications and the relevant cost experiences of any country is so tenuous as to be virtually meaningless."[159] Similarly, AHCIET characterizes the Commission's proposal as categorizing countries "to determine costs [] based exclusively on the Gross National Product per capita of each country." AHCIET concludes that it is not valid to use GNP per capita as the only basis to estimate costs.[160]

95. Other commenters oppose the Commission's proposal to establish benchmarks based on income level on the ground that GNP per capita does not accurately reflect differences in development level between countries. For example, Panama states that the Commission's proposal to classify countries on the basis of GNP per capita fails to recognize fundamental differences between countries such as economic, political, social, and technological development.[161] Similarly, TSTT argues that using GNP by itself to categorize countries is inappropriate because it does not take into consideration other social and economic factors such as unemployment, income distribution, and poverty. TSTT states that GNP per capita is not "a true indicator of the level/extent of development of a country's telecommunications infrastructure."[162] Indonesia states that "relevant factors influencing costs such as teledensity, geographical nature, [and] purchasing power parity" should be taken into

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[157] Singapore Telecom Comments at 9.

[158] *Id.*

[159] KDD Comments at 15; *see also* IDC Comments at 5 (Country classifications based on GNP "is an over-simplification of a very complex issue of operating costs as seen in Japan"); CANTO Comments at 6 (use of the World Bank classifications is inappropriate because "the range of cost sensitivity varies enormously among all developing countries"); Cable and Wireless Comments, Attachment A at 5 (whether there is "an inverse relationship between GNP per capita and the unit costs" of countries' networks is a "debatable proposition"); Japan Reply at 1-2.

[160] AHCIET Comments at 5.

[161] Panama Comments at 22; Panama Reply at 13.

[162] TSTT Comments at 3; *see also* France Telecom Comments at 14 (categorizing countries by GNP as the sole criterion may be inappropriate because it fails to take into consideration other elements, such as purchasing power parity or the level of development of a country's telecommunications sector); New T&T Comments at 2.

account in establishing benchmarks.[163] COMTELCA argues that reliance on GNP per capita to categorize countries is not the most effective means to achieve what it presumes is the Commission's goal of allowing "countries with the least developed communications infrastructure to receive the highest settlements payments."[164] COMTELCA urges the Commission to adopt a single regional benchmark for Central America.[165]

96. Some commenters object to the income level classification of specific countries. COMTELCA notes that our grouping of countries by GNP per capita places only two Central American countries in the low income category, while all others are in the middle income category. COMTELCA argues that all of its member countries have underdeveloped telecommunications systems and therefore should be in the benchmarks category designated for the least developed countries.[166] Tricom notes that the Dominican Republic would be at the extreme bottom of the middle income category and contends that it would be more accurate and appropriate to use the four income categories in the World Bank's classification scheme.[167] The Philippines also objects to the Commission's proposal to merge the two middle income groups, arguing that the combined category treats lower middle income countries unfairly.[168]

97. AT&T recognizes that using an averaging approach to establish benchmarks has the advantages of averaging the most inefficient foreign carrier tariffs with those that are more efficient and reducing the burden for less developed countries of moving toward more cost-based rates. However, AT&T urges the Commission to combine the averaging and country-specific approaches by setting the upper end of each country's benchmark range at the lower of either that country's TCP or the average of TCPs for countries in the same income category. AT&T states that combining the approaches is necessary because if the Commission's proposed averaging approach is adopted, countries with TCPs below the average will be discriminating against U.S. carriers by charging rates higher than those

[163] Indonesia Reply at 2.

[164] COMTELCA Comments at 12.

[165] *Id.* at 13.

[166] COMTELCA Comments at 12-13.

[167] Tricom Comments at 3.

[168] Philippines Comments at 34-36; *see also* GTE Reply at 23-24; TSTT Comments at 3.

charged to domestic customers.[169] COMTELCA opposes this suggestion, arguing that it would not allow foreign carriers to recover their costs.[170]

98. MCI also suggests a hybrid approach to setting benchmark settlement rates using TCPs. MCI proposes that the Commission set country-specific benchmarks equal to the lower of a country's TCP or a target rate twenty percent above the mean for all countries in the same economic development category. According to MCI, the Commission's proposed averaging approach would apportion the effect of the most excessive tariff regimes across all countries, instead of mitigating the effect of tariff inefficiencies. MCI states that its approach would reduce the impact of tariff inefficiencies on benchmark rates.[171]

99. TNZL and Telefónica de España oppose the Commission's proposal to average TCPs for countries in the same income category and urge the Commission to adopt country-specific benchmarks. Telefónica de España states that averaging is inappropriate "given that the costs at issue vary significantly even between countries that are within the same category."[172] TNZL objects to the Commission's averaging proposal on the ground that there is no necessary correlation between costs and income level. TNZL concludes that a country's own TCP is a closer "proxy" for costs than the averages proposed by the Commission.[173] Sprint urges the Commission to adopt country-specific benchmarks on the ground that the TCPs reflect cost differences among countries. Sprint states that a country's "geography or distance from the U.S., for example, would, all other things being equal, appear to be highly relevant to its TCP."[174] Frontier, on the other hand, states that country-specific benchmarks would be administratively cumbersome and could result in countries that are similarly situated having significantly different benchmarks.[175] Frontier therefore supports the Commission's proposal to establish benchmarks based on countries' level of economic development.

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[169] AT&T Comments at 16-27.

[170] COMTELCA Reply at 18-19.

[171] MCI Comments at 4-5; MCI Reply at 5-6.

[172] Telefónica de España Comments at 56.

[173] TNZL Comments at 7-8; *see also* SDN Users Assoc. Reply at 1 (country-specific benchmarks will result in settlement rates that more closely approach cost-based rates); Coalition of Service Industries Reply at 3 (where country specific data exists, the Commission should establish country-specific benchmarks).

[174] Sprint Comments at 16.

[175] Frontier Comments at 3.

c. Discussion

100. We adopt, with two modifications, our proposal in the *Notice* to establish separate benchmarks based on countries' level of economic development. We believe, contrary to the arguments of commenters who urge us to adopt country-specific settlement rate benchmarks, that it is appropriate to average country's TCPs and establish benchmarks based on level of economic development. We also believe, contrary to the arguments of some commenters, that GNP per capita provides a reasonable basis for grouping countries for purposes of calculating and implementing settlement rate benchmarks.

101. We use tariff data to calculate two of the three elements for settlement rate benchmarks as the best available option in the absence of cost data. As discussed above, using tariff data has several advantages: it is publicly-available data; it would result in nondiscriminatory treatment of international traffic vis-a-vis domestic traffic; and, importantly, relying on tariff data will result in settlement rate benchmarks that allow foreign carriers to recover more than their costs of providing international service.[176] However, there are also certain shortcomings of using tariff data that make reliance on each country's TCP to establish individual country benchmarks inappropriate.

102. The primary shortcoming of using tariff data to calculate settlement rate benchmarks is that any inefficiencies in foreign carriers' tariffed prices are captured in its TCP. As many commenters note, carriers' tariffed prices in many cases do not reflect the underlying cost of providing the tariffed service. This is in part because the tariffs reflect social policies such as universal service goals. For example, many countries have rate structures that use high international and domestic long distance charges to offset below-cost local service fees. Extreme examples of the problems of relying on tariff data to calculate benchmarks are markets such as Hong Kong and Kuwait that do not charge consumers on a per minute basis for domestic calls, but rather rely on a monthly subscription rate that includes domestic service. Another reason tariffed rates reflect inefficiencies is that, in many countries, telephone service is provided by monopoly carriers whose tariff rates may reflect protected market positions and an ability to charge prices not related to underlying costs. Because tariffed rates vary widely as a result of these inefficiencies, similarly situated

[176] We note that establishing settlement rate benchmarks which allow foreign carriers to recover more than their costs of providing international termination service is more appropriately viewed as a shortcoming rather than an advantage of using tariff data. We reiterate that our goal is ultimately to achieve settlement rates that are cost-based. However, in the absence of cost data, the TCP methodology provides a reasonable alternative for achieving substantial reductions in the level of current settlement rates.